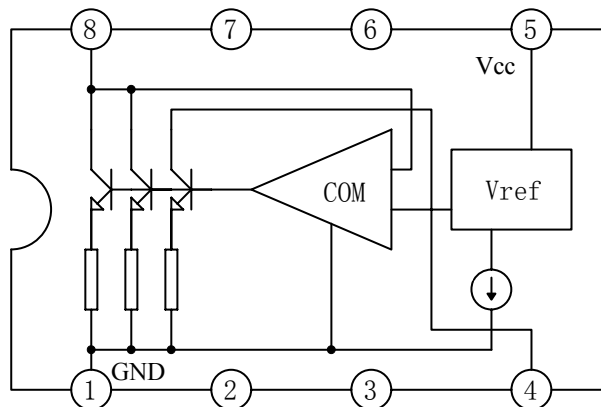# GENERAL USE ELECTRONIC GOVERNOR
—YD6220

DESCRIPTION

The YD6220 is a monolithic IC developed for speed control of general use DC motors.

FEATURES

*Wide range of working power supply voltage range (Vcc=3.5V～16V);

*Very large starting torque at low voltage;

*Large power dissipation allowable by using the PCB as a heat sink;

*Various DC motors can be driven by changing the external constants.

BLOCK DIAGRAM

NO.	1	4	5	8	2/3/6/7
SYMBOL	GND	CON	Vcc	OUT	NC

ABSOLUTE MAXIMUM RATINGS   (Tamb=25℃)

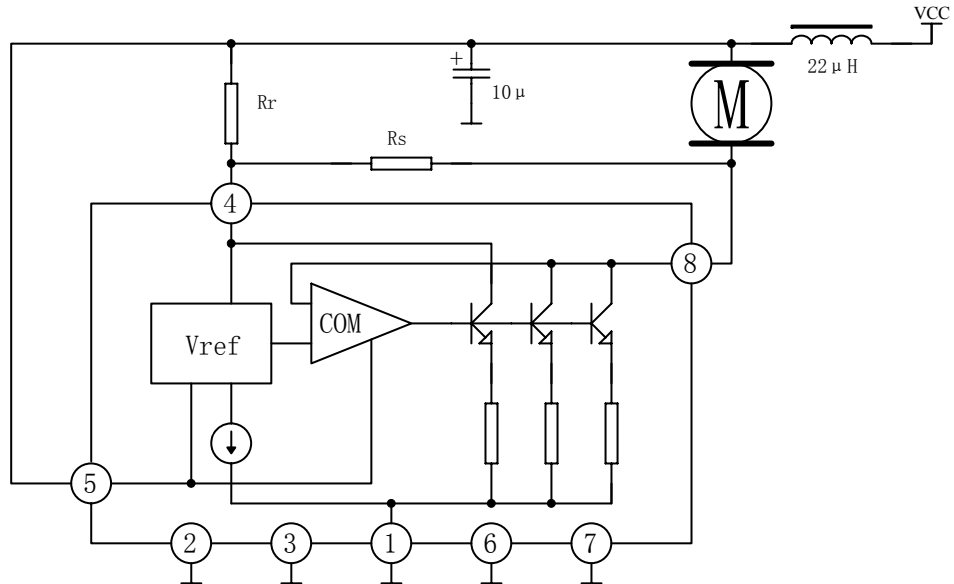| PARAMETER	SYMBOL	VALUE	UNIT
Supply Voltage	V_{CC}	18	V
Power Dissipation (Note)	P_D	1.4	W
Operating Temperature	Topr	-25 to +75	℃
Storage Temperature	Tstg	-55 to +125	℃

Note: PCB(Copper-surfaced)9cm^2,   T≤1.0 Sec

ELECTRICAL CHARACTERISTICS

(Tamb=25℃, V_{CC}=12V, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Voltage	Vcc	Load: 8g-cm	3.5	12	16	V
Bias Current	l4	R_M=180Ω	0.5	0.8	1.2	mA
Output Saturate Voltage	Vsat	V_{CC}=4.2V, R_M=4.4Ω		1.5	2.0	V
Reference Voltage	Vref	I_M=10mA	1.10	1.27	1.40	V
Current Ratio	K	R_{M1}=44Ω, R_{M2}=33Ω	18	20	22	
Voltage Feature of Reference Voltage	$\dfrac{\Delta Vref}{Vref}\Big/\Delta Vcc$	I_M=100mA, Vcc=6.3～16V		0.06		%/V
Voltage Feature of Current Ratio	$\dfrac{\Delta K}{K}\Big/\Delta Vcc$	I_M=100mA, Vcc=6.3～16V		0.4		%/V
Current Feature of Reference Voltage	$\dfrac{\Delta Vref}{Vref}\Big/\Delta I_M$	I_M=30～200mA		-0.02		%/mA
Current Feature of Current Ratio	$\dfrac{\Delta K}{K}\Big/\Delta I_M$	I_M=30～200mA		-0.02		%/mA
Temperature Feature of Reference Voltage	$\dfrac{\Delta Vref}{Vref}\Big/\Delta Ta$	I_M=100mA, Tamb=-25～+75℃		0.01		%/℃
Temperature Feature of Current ratio	$\dfrac{\Delta K}{K}\Big/\Delta Ta$	I_M=100mA, Tamb=-25～+75℃		0.01		%/℃

APPLICATION CIRCUIT

Rr<Rm×20

OUTLINE DRAWING